

REMARKS

Claims 1-13 are pending. In the final Office Action mailed April 3, 2006, the Examiner rejected claims 1-4 and 7-9 as anticipated by U.S. Patent No. 5,402,734 to Galpin, et al. (“Galpin”). The Examiner also rejected claims 5-6 and 10-13 as unpatentable over Galpin. Applicants amend claims 1, 3-6, 8, 10, and 13 with this response. Applicants hereby traverse the rejections of claim 1-13.

Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1-4 and 7-9 as anticipated by Galpin under 35 U.S.C. § 102(b). To establish a § 102 rejection, each and every element of the claim must be described, either explicitly or inherently, in a single prior art reference. *See* MPEP § 2131. Galpin, however, fails to teach or suggest every element in Applicants’ amended claims. For example, Galpin fails to teach or disclose an optical table having an upper and lower vibration isolating core “wherein the upper vibration isolating core and the lower vibration isolating core provide rigidity to the optical table” as recited in Applicants’ amended claim 1.

Galpin teaches a “honeycomb tabletop . . . wherein a number of cups are positioned between the bottom layer and the top layer.” *See* Galpin, Abstract. Galpin further discloses that “[t]he debris retention structures, such as the cups 25 are positioned to prevent contaminants from passing through the holes 19 into the honeycomb core 21 of the tabletop 11. Importantly, the cups 25 form cavities which facilitate the rapid and thorough cleaning of contaminants from the cups.” Galpin, col. 5, line 66- col. 6, line 3. Galpin does disclose that the cups 25 are “arranged to significantly contribute to the structural support of the table” by transferring loads from the upper layer to the intermediate layer. Galpin, col. 4, lines 28-31. But the transferring of loads does not teach or suggest vibration damping or isolation. Accordingly, Galpin fails to teach or disclose an optical table having the structural elements of an upper and lower vibration

isolating core “wherein the upper vibration isolating core and the lower vibration isolating core provide rigidity to the optical table.” For at least this reason, Galpin does not anticipate claim 1, and Applicants therefore request that the rejection of claim 1 under 35 U.S.C. § 102 be withdrawn and the claim allowed.

Claims 2-4 and 7-9 depend from and include all limitations of claim 1. Accordingly, claims 2-4 and 7-9 are distinguishable from Galpin for at least the same reasons given above for claim 1. Applicants therefore respectfully request that the rejections of claims 2-4 and 7-9 also be withdrawn and the claims allowed.

Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 5-6 and 10-13 under 35 U.S.C. § 103(a) as unpatentable over Galpin in view of the ordinary skill in the art. Applicants respectfully traverse these rejections.

In a § 103(a) rejection, the Examiner must establish the three elements of a *prima facie* case of obviousness. MPEP § 2142. First, the Examiner must show that the prior art references teach all elements of the claims. Second, the Examiner must show that the prior art provides the reason or motivation to make the claimed combination. The mere fact that references can be combined does not create a *prima facie* case of obviousness. Moreover, the motivation to combine cannot come from the applicant’s own disclosure but must come from the prior art itself. Additionally, no motivation to combine references exists where doing so would render one of the prior art references unsatisfactory for its intended purpose. Third, the Examiner must prove that there is a reasonable expectation of success in combining the prior art references.

Claims 5-6

The cited references taken together fail to teach all of the elements of claims 5-6. Galpin, as discussed above, fails to teach or disclose an optical table having an upper and lower vibration isolating core “wherein the upper vibration isolating core and the lower vibration isolating core provide rigidity to the optical table” as recited in Applicants’ amended claim 1. Further, Applicants submit that an optical table having an upper and lower vibration isolating core wherein the upper and lower vibration isolating cores provide rigidity to the optical table represents a novel and non-obvious advancement over the prior art. Manufacturing optical tables using the ordinary skill in the art is hampered by aligning the individual sections creating the core. To overcome this difficulty, Applicants’ claim 1 discloses an optical table having “an upper vibration isolating core . . . and a lower vibration isolating core.” By using multiple cores, Applicant’s claim 1 reduces the difficulty of aligning the individual sections that create the core while allowing the manufacture of tables with thicker cores. Galpin, on the other hand, discloses the use of a “respective plurality of cavities for containing debris” on an optical table. Galpin, col. 2, lines 13-14. The disclosure of debris containing cavities, however, would not make obvious to one having ordinary skills in the art of optical tables the structure of an optical table with “an upper vibration isolating core . . . and a lower vibration isolating core” where the cores provide rigidity to the optical table, as recited in Applicants’ amended claim 1. Accordingly, Applicants submit that claim 1 is patentable over Galpin in view of the ordinary level of skill in the art for at least this reason.

Claims 5-6 depend from and include all limitations of claim 1. Accordingly, Applicants submit that claims 5-6 are patentable over Galpin in view of the ordinary level of skill in the art

for at least the same reason. Applicants, therefore, respectfully request that the rejections of claims 5-6 be withdrawn and the claims allowed.

Claims 10-13

The cited references, taken together, fail to teach all claim elements in claims 10-13. For example, Galpin fails to teach or suggest at least a method of manufacturing an optical table by making at least two subassemblies, each having a vibration isolating core, and “bonding the subassemblies together to form the optical table” as recited in Applicants’ amended claim 10. Nor does Galpin teach or suggest an optical table formed by “two subassemblies bonded together, each subassembly comprising a vibration isolating core” as recited in Applicants’ amended claim 13. Applicants also submit that a method of manufacturing an optical table by bonding together at least two subassemblies, each having a vibration isolating core, represents a novel and non-obvious advancement over the level of ordinary skill in the art of optical tables. Further, a table manufactured according to this method represents a novel and non-obvious advancement over the level of ordinary skill in the art of optical tables. Applicants, therefore, respectfully request that the rejections of claims 10-13 be withdrawn and that these claims be allowed.

As stated above, Galpin teaches a “honeycomb tabletop . . . wherein a number of cups are positioned between the bottom layer and the top layer.” *See* Galpin, Abstract. Galpin discloses an embodiment including a lower layer of the tabletop, a honeycomb core, an intermediate structural layer, cups, and an upper layer of the tabletop. *See* Galpin, col. 4:37-5:21. Significantly, Galpin teaches that each of these layers are connected to adjacent layers using a glue layer, “preferably formed by a heat curing structural epoxy resin supplied on a film which is supported on a woven carrier or scrim.” *See* Galpin, col. 4:44-5:21. Galpin, however, fails to

teach an order in which each layer is built up to form the optical table. Additionally, as discussed above, Galpin fails to teach an optical table having only one core. Accordingly, Galpin fails to teach or suggest at least a method of manufacturing an optical table by making at least two subassemblies, each having a vibration isolating core, and “bonding the subassemblies together to form the optical table” as recited in Applicants’ amended claim 10. Nor does Galpin teach or suggest an optical table formed by “two subassemblies bonded together, each subassembly comprising a vibration isolating core” as recited in Applicants’ amended claim 13.

Further, the level of ordinary skill in the art fails to overcome this deficiency. The ordinary level of skill in the art teaches building optical tables on a layer-by-layer basis in which each layer of optical tables is glued to each adjacent layer. This approach led to problems with aligning the individual sections that created the core. The approach described in Galpin fails to suggest an alternative method to building an optical table. Accordingly, the disclosure in Galpin would not make obvious a method of manufacturing an optical table by making at least two subassemblies, each having a vibration isolating core, and “bonding the subassemblies together to form the optical table” as recited in Applicants’ amended claim 10. Nor would the disclosure in Galpin make obvious an optical table formed by “two subassemblies bonded together, each subassembly comprising a vibration isolating core” as recited in Applicants’ amended claim 13. For at least these reasons, Applicants respectfully request that the Examiner withdraw the rejections of and allow claim 10 and 13.

Claims 11-12 depend from and include all limitations of claim 10. Accordingly, Applicants submit that claims 11-12 are patentable over Galpin in view of the ordinary level of skill in the art for at least the same reasons stated above for claim 10. Applicants, therefore, respectfully request that the rejections of claims 11-12 be withdrawn and the claims allowed.

Examiner's Response to Arguments

The Examiner found Applicants' previous remarks, filed in Applicants' amendment of January 5, 2006, to be unpersuasive because of Applicants' use of the term "core" to mean a vibration damping or isolation layer. (OA, pgs. 3-5, par. 8-11). In the amendment, the claims have been amended to specifically define the core as being a vibration damping or isolation layer. The Examiner's objection to the use of the term "core" alone in the claims, therefore, should be removed and the claims thereby allowed.

Conclusion

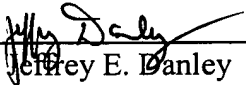
In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: August 3, 2006

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